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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,669	09/12/2003	Duane Treybig	7726-ONES	9132
49459	7590	06/11/2007		
NALCO COMPANY 1601 W. DIEHL ROAD NAPERVILLE, IL 60563-1198			EXAMINER TOSCANO, ALICIA	
			ART UNIT 1712	PAPER NUMBER
			MAIL DATE 06/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/661,669	Applicant(s) TREYBIG ET AL.	
	Examiner Alicia M. Toscano	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/16/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 29-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 26-28 have been cancelled. Rejection over said claims is thusly removed.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 2, 4-8, 12-17 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Treybig (US 6569983).

This rejection is as set forth in the previous action dated 8/2/06.

Remarks:

Applicant argues Treybig discloses always reacting the polyhydroxyetheramine with an alkylating agent and that (1) because said agent does not meet the RX requirements the invention is novel or (2) because Treybig discloses always alkylating the polyhydroxyetheramine, said polyhydroxyetheramine does not meet the compositional requirements and the composition is thusly novel. Applicant further argues the claimed backbone of Treybig is different from that claimed.

Examiner disagrees. Applicants claims are drawn to (1) the polyhydroxyether amine or (2) the optionally alkylated polyhydroxyether amine. The polyhydroxyetheramine of Treybig is always alkylated however Claim 1 does not

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exclude other/additional alkylation. Thusly, the alkylated polyhydroxyetheramine meets the compositional requirements of (1). That Treybig does not use the RX alkylating agent is moot. The RX alkylating agent is optional.

Regarding Treybig having a different backbone, Treybig meets the compositional requirements as set forth previously and the rejection is thusly moot. Examiner believes applicant is referring to the fact that applicants invention relates to reacting (1) diepoxide with (2) amine and further reacting with (3) a second amine, however applicants claims are not written as such. Applicants claims allow (2) and (3) to be one in the same polymer, as the Examiner has stated previously. The rejection thusly stands.

3. Claims 1, 3, 9, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by McCoy (US 4396499).

This rejection is as set forth in the previous action dated 8/2/06.

Remarks:

Applicant argues McCoy does not disclose a method of treating a subterranean formation.

Examiner disagrees. McCoy teaches demulsification of bitumen emulsions. Said emulsions may be under ground, or subterranean (Column 1 Line 22), where steam or hot water may be used to create the emulsion (Column 1 Line 26), and use of 1% of the polyhydroxyether amine in the composition is as previously set forth in the

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action dated 8/2/06. McCoy thusly teaches treating subterranean formations with aqueous compositions comprising 1% polyhydroxyetheramines.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 21, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treybig in view of Gupta (US 2003/0008781).

This rejection is as set forth in the actions dated 8/2/06 and 1/16/07.

Remarks:

Applicant argues the Gupta does not make up for the deficiencies of Treybig, Examiner disagrees, Treybig is not deficient, as discussed above. Applicant further argues the use of the polyhydroxyetheramine in a known process or in combination with known ingredients of Gupta is nonobvious. Examiner disagrees. As previously set forth, it would have been obvious to one of ordinary skill in the art to include in Treybig the addition of stabilizaiton salts, as taught by Gupta, in order to increase the permeability of the clay in the subterranean formation.

5. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treybig in view of Soula (US 4417048).

This rejection is as set forth in the action dated 1/16/07.

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Remarks:

Applicant argues Soula does not disclose the formation of salts and as such the teachings of Soula are irrelevant to the above claims.

Examiner disagrees. Soula teaches the functional equivalence of methyl chloride and chlorooctane. The motivation is proper. Regarding the salt formation, the use of methyl chloride as an alkylating agent is disclosed by applicants in claim 23, last line, to form the salt of the polyhydroxyetheramine. Applicants arguments are thusly moot.

6. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treybig in view of Bruhnke (US 5773405).

This rejection is as set forth in the previous action dated 8/2/06.

Remarks:

Applicant argues Bruhnke discloses a fundamentally different polymer than Treybig and the references are thusly not combinable.

Examiner disagrees. Examiner previously expressed the need for Applicants to submit experimental results showing that the materials of Treybig and Bruhnke are different since it was the Examiners position that the polyhydroxyetheramines are similar if not identical materials. Examiner further requested unexpected results when using 0.005-2% of the solvent in the composition. Applicants state that they are at a loss as to how he can show any unexpected result. Examiner notes that data showing

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(1) a composition with no solvent versus (2) a composition with 0.005% solvent may be submitted so that unexpected results can be ascertained.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treybig.

This rejection is as set forth in the previous action dated 8/2/06.

Remarks:

Applicant argues Treybig discloses both a different alkylating agent and a different base polymer.

Examiner disagrees for the reasons set forth in Treybig above.

8. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treybig in view of Soula.

Treybig includes elements of the invention as discussed above. Treybig does not explicitly disclose the reaction of a alkylene oxide amine which has 2 reactive hydrogens and a second amine having 3 or more reactive hydrogen atoms to form a first product and then reacting this product with a third polyhydroxyetheramine to form the final product, as required in Claim 18, nor the use of this method with an alkylating agent, as required for Claim 32. Treybig discloses branched polyhydroxyetheramines to have superior oil-water performance in Example 11. It would have been obvious to one of ordinary skill in the art at the time of the invention to further increase branching, by adding sequential reactions of polyhydroxyetheramines, as taught by Treybig in Claim 9

and Example 11, in order to further improve the oil-water performance of the polyhydroxyetheramine.

Examiner notes Applicants Examples beginning on Page 17 of Specification to disclose making a solution of a polyhydroxyetheramine purchased from Dow Chemical Comp as the polyhydroxyetheramine of his invention. Applicant does not further modify or improve this Dow product, nor does applicant disclose what the product, or the structure of the product is.

Treybig discloses the use of alkylating agents such as chlorooctane (Column 4 Line 6). Treybig does not include the use of methyl chloride or dimethyl sulfate, as required by the above Claims.

Soula discloses the N-alkylation of organonitrogen Compounds. Agents for said alkylation include chlorooctane and methyl chloride. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Treybig, the use of methyl chloride, as taught by Soula, since this is recognized in the art as being functionally equivalent to chlorooctane.

Response to Arguments

9. Applicant's arguments, filed 5/16/07, with respect to the rejection(s) of claim(s) 32 under Treybig have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Soula, see above.

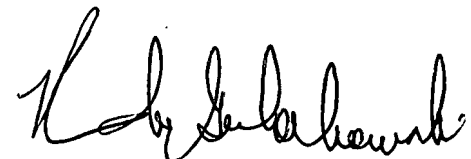
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is 571-272-2451. The examiner can normally be reached on Monday to Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT


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